



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/665,687

09/17/2003

David M. Skinlo

Q137-US6

6258

31815 7590 07/10/2009

MARY ELIZABETH BUSH
QUALLION LLC
P.O. BOX 923127
SYLMAR, CA 91392-3127

EXAMINER

HODGE, ROBERT W

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

07/10/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 4/20/09 have been fully considered but they are not persuasive. Applicants state that the proposed modification renders the prior art unsatisfactory for its intended purpose because supposedly the proposed modification would result in a shorted battery. It is unclear how a shorted battery would be a result of the proposed modification since all of the references discuss electric isolation and/or insulation between the positive and negative electrodes to prevent a shorted battery (column 3, lines 22-23 of Teramoto, column 4, lines 3 et seq., of Kitoh and column 2, lines 16 et seq. of Chreitzberg). It is also submitted that those skilled in the art would be well versed in the practices of assembling batteries and would therefore also understand how to prevent a short circuit from occurring before, during and after assembly of the battery especially since a shorted battery can result in the injury of the skilled artisan assembling the battery.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 43-45, 67-69, 83 and 85-87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teramoto et al. (US 5,501,916) in view of Kitoh et al. (US 6,399,242 B2) and Chreitzberg (US 3,159,508).

Art Unit: 1795

With respect to claims 43, 45, 85 and 86 Teramoto et al. teach a lithium battery comprising a battery can (45) sealed by a first battery lid (47) and a second battery lid (47), an electrically conductive terminal core (48) extending through the first battery lid and electrically insulated from the case by gasket (46), an electrode assembly disposed within the can, wherein the positive electrode is in electrical communication with the core while the negative electrode is not in electrical communication with the core. See Figure 9, Example 2.

However, Teramoto et al. do not teach a conductive tab extending from a first location adjacent to the case to a second location further from the first location than the center point where the tab is electrically connected to the second battery lid such that the tab is immobilized only at the second location.

Kitoh et al. teach a lithium battery comprising a battery case, a first battery lid (16), a second battery lid (17), wherein flexible conductive tabs are disposed past a center point of the second battery lid and are electrically connected to the second battery lid. As a result, the internal resistance is reduced and current extraction from the internal electrode become easier. See Figure 4 and Column 5, Lines 20-43. Kitoh et al. further teach that the tab is not attached to the second battery lid continuously over a distance extending from the first location to the second location. See Figure 4.

As seen in figure 1, Chreitzberg teaches a battery wherein the tab 8 (on the right hand side of the figure) connects to the negative electrode 3 (also on the right hand side of the figure) and extends to the negative terminal 7 (i.e. extends across the whole

Art Unit: 1795

interior not immobilized) and is attached to the terminal in the cap only at the terminal (i.e. is only immobilized at the terminal in the cap), see also column 2, line 44 et seq.

Therefore, it would have been obvious to one of ordinary skill in the art to use flexible conductive tabs to electrically attach the negative electrode to the second battery lid such that the tab is only immobilized at a second location past the center point from the first location of the cap in the battery of Teramoto et al., as taught by Kitoh et al. and Chreitzberg in order to reduce internal resistance and facilitate current extraction from the electrode and also since it has been held that the rearrangement of parts is within a skilled artisans level of skill in the art. In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950).

With respect to claim 44, Teramoto et al. teach the case does not have a fill hole. See Figure 9.

With respect to claims 67 and 87 Chreitzberg teaches that the distance from the first location to the second location is greater than the radius of the cap and the tab extends past the center point of the cap. See Figure 1.

With respect to claims 68 and 69 Teramoto et al. teach the electrodes are spirally wound on the terminal core. The terminal core further comprises a mandrel (49,50) around the core. See Figure 9.

With respect to claim 83, Teramoto et al. teach the positive electrode is in electrical commutation with the terminal core via a weld (52). See Example 2.

Art Unit: 1795

Claim 84 is rejected under 35 U.S.C. 103(a) as being unpatentable over Teramoto et al. (US 5,501,916), Kitoh et al. (US 6,399,242 B2) and Chreitzberg (US 3,159,508) as applied to claim 43 above, and further in view of Cogan (US 5,755,759).

Teramoto et al., Kitoh et al. and Chreitzberg as discussed above are incorporated herein.

However, Teramoto et al. Kitoh et al. and Chreitzberg do not disclose the use of PtIr alloy as the pin. Cogan teaches a biomedical device wherein the wire electrode is made of PtIr alloy because it can record or stimulate physiological function. See Column 3, Lines 43-56. Therefore, it would have been obvious to one of ordinary skill in the art to use PtIr alloy as the pin onto the battery of Teramoto, Kitoh and Chreitzberg, in order to provide an electrode pin that has reduced electrical resistance thereby improving the overall performance of the battery. If a technique has been used to improve one device (an electrode made of PtIr), and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. See MPEP 2141 (III) Rationale C, KSR v. Teleflex (Supreme Court 2007).

Claims 43-45, 67-69, 83 and 85-87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teramoto et al. (US 5,501,916) in view of Kitoh et al. (US 6,399,242 B2) and Kitano et al. (US 5,912,089).

Teramoto et al. as discussed above is incorporated herein.

However, Teramoto et al. do not teach a conductive tab extending from a first location adjacent to the case to a second location further from the first location than the

Art Unit: 1795

center point where the tab is electrically connected to the second battery lid such that the tab is immobilized only at the second location.

Kitoh et al. as discussed above is incorporated herein.

As seen in figures 2 and 3, Kitano et al. teach a battery wherein the tab 6 extends from an area adjacent to the case to a second location A and is attached to the cap only at location A (i.e. immobilized at location A) and is not immobilized over the entire distance from the first location to the second location (column 3, lines 30-40).

Therefore, it would have been obvious to one of ordinary skill in the art to use flexible conductive tabs to electrically attach the negative electrode to the second battery lid such that the tab is only immobilized at a second location past the center point from the first location of the cap in the battery of Teramoto et al., as taught by Kitoh et al. and Kitano et al. in order to reduce internal resistance and facilitate current extraction from the electrode and also since it has been held that the rearrangement of parts is within a skilled artisans level of skill in the art. In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950)

With respect to claims 67 and 87 Kitano et al. teaches that the distance from the first location to the second location is greater than the radius of the cap and the tab extends past the center point of the cap. See Figure 1.

Claim 84 is rejected under 35 U.S.C. 103(a) as being unpatentable over Teramoto et al. (US 5,501,916), Kitoh et al. (US 6,399,242 B2) and Kitano et al. (US 5,912,089) as applied to claim 43 above, and further in view of Cogan (US 5,755,759).

Art Unit: 1795

Teramoto et al., Kito et al. and Kitano et al. as discussed above are incorporated herein.

However, Teramoto et al. Kito et al. and Kitano et al. do not disclose the use of PtIr alloy as the pin. Cogan teaches a biomedical device wherein the wire electrode is made of PtIr alloy because it can record or stimulate physiological function. See Column 3, Lines 43-56. Therefore, it would have been obvious to one of ordinary skill in the art to use PtIr alloy as the pin onto the battery of Teramoto, Kito and Kitano et al., in order to provide an electrode pin that has reduced electrical resistance thereby improving the overall performance of the battery. If a technique has been used to improve one device (an electrode made of PtIr), and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. See MPEP 2141 (III) Rationale C, KSR v. Teleflex (Supreme Court 2007).

Allowable Subject Matter

Claims 70-82 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. For reasons made of record in the office action dated 3/7/07.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT HODGE whose telephone number is (571)272-2097. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1795

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert Hodge/
Examiner, Art Unit 1795